NASA Procedural Requirements

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CHAPTER 4: NASA Equipment Management Systems (NEMS)

4.1 General Description of NEMS

4.1.1. Purpose. This chapter sets forth a general description of NEMS, authority, and requirements, NEMS operations, NEMS status codes for equipment availability, the use of NEMS for equipment availability searches and redistribution, contractor use of NEMS, and the operational requirements of NEMS.

4.1.1.2. The NASA Equipment Management Program requires utilization of NEMS by all NASA organizations and onsite accountable contractors. The system requires accurate and complete information.

4.1.2. Guidance Information (Reserved)

4.1.3. General System Description

4.1.3.1. The NEMS is a standard, Agencywide automated system designed to simplify, standardize, and reduce the cost of managing and controlling NASA's equipment. NEMS operates on Adaptable Database (ADABAS), a data-base management system, utilizing natural programming language.

4.1.3.2. NEMS provides all NASA organizations with the elements of information needed for an integrated system to identify, account for, and control NASA equipment. Responsibilities and procedures required of property custodians may be found in NPG 4200.2B, Equipment Management User Guide for Property Custodians.

4.1.4. How NEMS Operates

4.1.4.1. NEMS is an online, interactive system designed to process add, change, and delete transactions for controlled equipment maintained in the data base.

4.1.4.2. Each NEMS transaction requires a source document that authorizes the transaction. NEMS generates an Entry Reference Number for each transaction processed, and the source documents are filed by Entry Reference Number to establish a complete audit trail for each equipment item from its initial receipt, for interim changes, until deleted from the Agency's records.

4.1.4.3. When an equipment record has been deleted from NEMS, the complete record is stored in a history file. The history file remains accessible, by ad hoc inquiry, for at least 3 years.

4.1.4.4. A NEMS central data base concatenates all NASA Center NEMS data bases, processes changes submitted from those data bases overnight, and provides next day, on line access to the NEMS central data base.

4.1.4.5. The central data base also offers four methods for selecting some specific types of equipment data from the central data base. The ad hoc inquiries are by (1) manufacturer and model number; (2) item name (allowing three name combinations); (3) tag number (including Equipment Control Number, old tag number, previous ECN, contractor tag number); and (4) field search, by certain data elements only.

4.1.5. NEMS Roles and Relationships

4.1.5.1. The NASA Centers will collect necessary data to develop and maintain NEMS. Each Center must select and provide the

inputs which enable NEMS to be a working accounting interface and control system. The effectiveness, accuracy, quality, and visibility of the system depend on the quality of each Center's effort. Additional online update capabilities that may be locally developed must be engineered to interface with the Center`s NEMS.

4.1.5.2. NEMS required roles and relationships are as follows:

a. The NEMS data base at each Center is maintained by the Center's responsible data processing organization. The Center's equipment management organization operates NEMS control and analyzes its activities, making operational changes when necessary.

b. The physical operation of the NEMS central data base at the NASA Automatic Data Processing Consolidated Center (NACC) at the Marshall Space Flight Center. The Director, Security, Logistics, Aircraft, & Industrial Relations Division, NASA Headquarters, must approve all actions of the NEMS Configuration Control Board (CCB) that bear on or impact Agency logistics policy and objectives and otherwise advise the CCB of policy implications, as necessary.

c. Each Center acts as the input source and prime user of output data by collecting data about its contractor-held equipment and in-house holdings and providing the basic information necessary to operate NEMS. In return, the Center is furnished control and redistribution information about NEMS reportable equipment.

d. Several NASA contractors, through the Center which maintains their contract, use NEMS. They provide information pertaining to the NASA equipment they hold and will use equipment made available through NEMS to meet approved requirements.

4.1.5.3. Each Center has the following focal points for its NEMS operations: the SEMO, the NEMS Equipment Manager, and NEMS Control. The NEMS Equipment Manager ensures the following:

a. Standardization and update of information pertaining to Center-held NEMS equipment data.

b. Submission of NEMS equipment data to the NEMS central data base and any follow-up required for the resolution of problems related to data submission.

c. Determination and reporting of accurate equipment status codes.

d. Preparation of NASA Form 1577, identifying unique equipment for neutrilization.

4.1.5.4. The coordination required for the most effective use of NEMS output data in equipment utilization, includes the following:

a. Monitoring and evaluating the use of NEMS data and providing activity reporting.

b. Overseeing the Center NEMS Control.

c. Controlling and preparing NASA Form 1577 in conjunction with technical experts for unique equipment reutilization.

d. Ensuring that identified redistribution to or from the Center or its contractors is completed.

e. Maintaining appropriate documentation to support NEMS redistribution actions.

4.1.6. NEMS Status Codes For Equipment. In order to provide a key to the relative availability of particular items, the entry of an item will contain a status code letter reflecting its degree of availability. Status Code A indicates "Active"; and Status Code B indicates "Inactive Assigned." Property condition codes and definitions are defined in Appendix H of NPG 4300.x. Combining the equipment status code and condition code provides information regarding the reutilization potential of idle equipment. Equipment status codes and their definitions are defined in appendix F of this NPG.

4.2 Using NEMS for Equipment Availability Searches and Redistribution

4.2.1. Purpose. This part describes the recommendations for NEMS screening before new procurements are undertaken, how to redistribute equipment, and how excess equipment is handled within the NEMS.

4.2.2. Guidance Information (Reserved)

4.2.3. Screening New Procurements. Before new items of equipment are procured purchase requests must be screened to determine if the desired item or an acceptable substitute is available from either NEMS or NASA Property Disposal Management.

4.2.4. Informal Review of Item Availability

4.2.4.1. Each Center, in establishing its NEMS Control Center, will make provisions for informal screening. This capability will be designed to permit technical users of equipment to rapidly determine the availability of particular types of equipment to fulfill requirements prior to the initiation of a procurement request. This informal review permits a user to quickly examine several makes and types of equipment that may meet equipment requirements.

4.2.4.2. Informal screening will be accomplished by using procedures most suitable to the particular Center. Generally, a

telephone service or simple form developed by the Center NEMS Equipment Manager is adequate to accomplish this requirement.

4.2.5. Formal Procurement Request Screening.

4.2.5.1. All Center procurement requests for items of equipment with an estimated unit cost of $25,000 or more will be routed through the NEMS Equipment Manager for screening.

4.2.5.2. At a minimum, a manufacturer and model search of the NEMS central data-base screening file will be accomplished.

4.2.5.3. If no candidate items are found as a result of the manufacturer or model search, records may be selected by a manufacturer multiple item name search, or by multiple item names only. NEMS allows a choice of three name combinations when searching for an item in order to increase the chances of selecting all available items (e.g., select; computer, personal; personal computer; and PC). Equipment records for available items will be listed in the same format as shown for the manufacturer code and model number records.

4.2.6. Supplemental Screening. The following additional screening steps are available:

4.2.6.1. Equipment items may be screened through the Defense General Supply Center (DGSC), Federal Disposal System (FEDS), Screen by Computer and Request Excess by Electronic Notification, or the DRMS Contractor Inventory Redistribution System (CIRS). The Center Industrial Property Officer will coordinate DGSC CIRS screening with the procurement request originator.

4.2.6.2. The equipment coded active in the data file (i.e., status code A) may be screened for possible loan or transfer of accountability if the need for the item is urgent and great.

a. The NEMS equipment manager may screen the NEMS central data base by using the central equipment file ad hoc menu for records by multiple data fields.

b. If this screening is to be undertaken, the NEMS equipment manager must ensure that the requirement is of such a nature that the holding Center should be approached with a request to assist the requesting Center. It is advisable to have the requester confer with the technical personnel having the item to determine if it will fulfill the requirements.

c. Once a loan or transfer of accountability has been arranged, the NEMS Equipment Managers should take appropriate actions. The transfer of accountability of Government furnished equipment to a contractor is recorded in NEMS merely to provide an audit trail. This record is then deleted from NEMS in compliance with the FAR 45.5 requirement for contractors to maintain the official property record.

4.2.7. Screening Approved Contractor Requirements

4.2.7.1. Pursuant to the requirement established at the NASA FAR Supplement, prior to new acquisition of items meeting the definition of centrally reportable equipment with an estimated unit cost of $1,000, contractors are required to submit a DD Form 1419, Department of Defense Industrial Plant Equipment Requisition, to the Center Industrial Property Officer or the NEMS Equipment Manager via the contractor`s cognizant contracting officer and contracting officer`s technical representative. The contracting officers must authorize the request to screen before the NEMS Equipment Manager will take action. The contracting officer's authorization to screen is also authorization to acquire if the item is available through NEMS or NPDMS or DGSC CIRS; it is not an authorization to purchase the item.

4.2.7.2. If the item requested on the DD Form 1419 is not available from NEMS or NPDMS, a certificate of nonavailability will be issued and returned to the contractor for further action. If an item is identified as being available, steps will be taken to redistribute this item.

4.2.7.3. A waiver for screening unique items that obviously will not be found in NPDMS may be acquired through request to the SEMO.

4.3 NEMS Operational Requirements

4.3.1. Purpose. This part defines the following NEMS operational requirements: mandatory data elements and standards used in the NEMS equipment record; operating schedule to be used for the Center NEMS data base and the NEMS central data base; output products and microfilm equipment requirements; unique equipment requirements; and input transactions and output reports for the Center and the NEMS central data base.

4.3.2 Guidance Information (Reserved)

4.3.3. The NEMS Mandatory Data Elements. Each controlled equipment record requires certain mandatory data elements to establish the record in the NEMS database. Appendix D describes each mandatory data element in detail.

4.3.4. NEMS CDB Operating Schedule. Operating schedules are established for both the Center NEMS updates and the NEMS central data-base updates. The central data-base is updated daily via electronic communication between the Center mainframe computer and the NEMS central mainframe computer.

4.3.5. NEMS Output Products. NEMS generates several types of output products at a Center and generates ad hoc reports from

the NEMS central data base.

4.3.5.1 Center Output Products

a. NEMS produces reports on a daily, monthly, quarterly, semiannual, annual, and triennial basis as scheduled, and on request reports as selected. Regularly scheduled reports are batch processed overnight the following day.

b. NEMS produces NEMS Transaction Documents, a NASA Form (NF)1602, for distribution to the accountable property custodian upon initial custodian account receipt of equipment and also when change transactions are made to such equipment record.

4.3.5.2. NEMS central data base. Each Center may use the central data base for equipment redistribution screening requirements, for locating missing equipment records that may have been moved to another Center's NEMS data base, or for making equipment record inquiries on a limited number of specified data fields.

4.3.6. NEMS Documentation Archiving

4.3.6.1. The SEMO shall operate a document archiving system to ensure that an adequate audit trail is maintained for all Agency-controlled equipment.

4.3.6.2. Source documents including those for the inventory subsystem will be compiled in Entry Reference Number sequence and archived on a routine basis.

a. The original source documents need not be retained by the equipment management organization; however, the financial management organization may wish to retain original source documents that support financial changes.

b. NEMS Control will maintain appropriate archiving retrieval equipment to support retrieval and hard-copy printing of archived records as necessary to support the needs of the Center.

4.3.7. Unique Equipment

4.3.7.1. NF 1577, NASA Unique Equipment Utilization Review, will be used to conduct utilization reviews of NASA inactive unique equipment. Redistribution of unique equipment will be reported utilizing NPDMS procedures.

4.3.7.2. For control purposes and to interrelate in the NEMS central data base to items pertaining to a unique equipment capability, a unique equipment number will be developed and assigned to each NF 1577 case when prepared. The number shall be structured as follows:

a. The first two positions will be the Center number.

b. The next three positions will be a Center-developed acronym for the unique equipment.

c. The last four positions are the total number of NEMS reportable items making up the unique equipment.

4.3.7.3. As the NF 1577 is distributed, the unique equipment number will be added to the Center NEMS data base and the NEMS central data base for all applicable NEMS items by NEMS Transaction 60, NASA Held Equipment Record Data Change.

4.3.7.4. The NEMS Reutilization Coordinators, upon receipt of NF 1577 will make sufficient copies and distribute them within their Center to ensure that a complete redistribution review is conducted of the unique equipment.

4.3.8. NASA Form 1602, NEMS Transaction Document

4.3.8.1 The NF 1602 is a multipart, standard Agency form that reflects equipment information contained in the NEMS data base. This document may be replaced, at the discretion of the SEMO, by an electronic form or process that serves the same capabilities as the paper document.

4.3.8.2. The NF 1602 has the following characteristics:

a. Brief instructions for use are on the reverse side of the Suspense Copy (copy 4) of the form.

b. Transactions are initiated by checking the appropriate block(s) in the right-hand column and by following individual instructions for Blocks 31-35.

c. Data in Blocks 1-28 and 36-38 are computer-generated. Any changes submitted by a property custodian for Blocks 1 - 28 are annotated in Block 33, Remarks. Blocks 36-38 indicate the control numbers assigned for the last transaction, the last transaction type, and the last transaction name for ready reference. Block 39 is manually annotated by NEMS Control at the time a new transaction is being processed.

d. Blocks 1, 8, 9, 11, and 12 are outlined for easily identifying the equipment control, accountable property custodian, organization mail stop, and location.

4.3.9. NEMS Central Data Base Transaction Information

4.3.9.1. The NEMS central data base is designed to provide equipment visibility for screening and redistributing NASA's equipment valued at $1,000 or more and for locating specific equipment items or specific equipment data for management purposes.

4.3.9 2. The NEMS central data base is comprised of each Center's NEMS data base. The NEMS central data base will track transfers, provide screening and ad hoc inquiry functions, and produce reports.

a. NEMS central data base Transfer Transactions. The NEMS central data base will track Transfer actions between NASA Centers and NASA contractors through the Center Number (conveyor and receiver) and Contractor Number (conveyor and receiver) data elements as they are applied to the following NEMS transactions. These transactions should produce NEMS Report 710, Redistribution Summary from Center, on a quarterly and annual basis.

b. Transaction 04 - Receipt by Transfer from NASA Center.

c. Transaction 06 - Receipt by Transfer from Contractor.

d. Transaction 07 - Receipt by Transfer, Reported by Contractor.

e. Transaction 65 - Transfer to Another NASA Center.

f. Transaction 67 - Transfer of Government Furnished Equipment to a Contractor.

g. Transaction 68 - Transfer of Government Furnished Equipment by a Contractor.

4.3.9.3. The NEMS central equipment file "conveyor delete" should be processed prior to the "receiver add" in order to delete the conveyor's record from the transfer file and to convert the record to the receiver in the Central Equipment File. If the receiver adds the item prior to conveyor delete, the NEMS central data base will accept the duplicate record. The conveying Center is responsible for submitting the delete transaction as soon as possible to remove the duplicate record from the NEMS central data base.

4.3.9.4. NEMS CDB Screening and Ad hoc Capability. The NEMS central data base provides the following six methods of data selection available to a NASA Center:

a. Equipment Search by Manufacturer Multiple Model Numbers.

b. Equipment Search by Manufacturer Multiple Item Names.

c. Equipment Search by Multiple Item Names.

d. Equipment Search by an ECN.

e. Equipment Search by Multiple Data Elements.

f. NEMS Transfer File.

4.3.9.5. NEMS is designed to generate special data reports upon request. Most data fields can be sorted or compared with other data fields.

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